

DISTRIBUTION AND SPECIES COMPOSITION OF SEA TURTLES IN NORTH CAROLINA

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In the summer of 1988 the Beaufort Laboratory began conducting research on sea turtles in North Carolina waters. The research was initiated because the Pamlico-Albemarle Estuarine Complex (Figure 1) is the largest estuarine system in the southeastern United States, and there is a growing awareness that estuaries are important developmental and foraging habitat for several species of sea turtles. In addition, the Pamlico-Albemarle Estuarine Complex was historically the site of a large turtle fishery; the occurrence of loggerhead, green and Kemp's ridleys were documented in the landings of the fishery.

The study consisted of four discrete projects: 1) the public sighting program where posters were used to request that the public report sightings of sea turtles throughout the state's waters (Veishlow et al., in press), 2) the ferry boat program where sighting logs were carried on each public ferry in the coastal waters of the state (Veishlow et al., in press), 3) aerial surveys of Core and Pamlico Sounds where surface waters were surveyed monthly (Braun et al., in press), and 4) biological sampling where volunteer fishermen recorded their incidental catches and, when time permitted, measured, photographed and double tagged the turtles.

The results indicated that sea turtles were present in the offshore waters (seaward of the COLREGS Demarcation Line) of the state all months of the year. They were also relatively abundant inshore from April into December. The distribution patterns of sea turtles in estuarine waters indicated immigration in the spring, sorting (perhaps by habitat type) throughout the summer, and emigration in the late fall and early winter. In the spring, turtles were initially distributed in Core Sound and in the eastern portion of Pamlico Sound, with the highest density occurring in the southeast area. As waters warmed, the turtles dispersed throughout the sounds entering the lower portion of tributary rivers and penetrating into Croatan and Roanoke Sounds; none were reported from Albemarle or Currituck Sound.

Loggerhead sea turtles of all sizes, immature greens and Kemp's ridleys and a single adult green turtle were incidentally captured by volunteer fishermen in inshore waters; public sighting reports and aerial surveys revealed the infrequent occurrence of leatherbacks inshore. Similarly, confirmed public sighting reports, aerial reconnaissance, and fishermen's reports also indicated the presence of these same four species in the offshore waters.

LITERATURE CITED

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